TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416
FP-05003PC		
International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2005/001801	08.02.2005	09.02.2004

International Patent Classification (IPC) or national classification and IPC

Applicant

ASKA PHARMACEUTICAL CO., LTD.

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☐ *(sent to the applicant and to the International Bureau)* a total of _____ sheets, as follows:

      ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))

      _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☒	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☐	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2005/001801

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following _____ which is the language of a translation furnished for the purposes of:

☐ international search (Rule 12.3 and 23.1(b))

☐ publication of the international application (Rule 12.4)

☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☒ the international application as originally filed/furnished

☐ the description:

pages _____ as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☐ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* _____ received by this Authority on _____

☐ the drawings:

sheets _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2005/001801

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 18

because:

☒ the said international application, or the said claims Nos. 18
relate to the following subject matter which does not require an international preliminary examination (*specify*):

The subject matter of claim 18 relates to methods for treatment of the human body by therapy.

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 18

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form
☐ has not been furnished
☐ does not comply with the standard

the computer readable form
☐ has not been furnished
☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See Supplemental Box for further details.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2005/001801

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-17	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-17	NO
Industrial applicability (IA)	Claims	1-17	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The following documents were cited in the international search report.

Document 1: The American Journal of Cardiology, 2002, Vol. 89, pages 1308 to 1310

Document 2: JP 2002-502869 A

Document 3: WO 2003/082283 A2

Document 4: NEW Yakurigaku (3rd Edition), Nankodo, 25 November 1996, pages 403 to 405 and 504 to 506

Document 5: European Journal of Internal Medicine, 2003, Vol. 14, pages 357 to 360

Document 6: JP 1-71813 A

Document 7: Tounyoubyou, 1994, Vol. 37, Number 1, pages 17 to 22

(1) Inventive Step of Claims 1 to 9 and 11 to 17/Document 1

Document 1 indicates that atorvastatin or simvastatin which are remedies for hyperlipemia are administered together with acarbose, which is a remedy for diabetes (table 1, page 1309, left column, lines 1 to 6).

That being the case, it would be obvious to a person

skilled in the art to use a pharmaceutical combining atorvastatin or simvastatin with acarbose in the treatment of hyperlipemia or diabetes.

(2) Inventive Step of Claims 1 to 9 and 11 to 17/Documents 1 to 4

In addition to the matters set forth in (1) above, documents 2 and 3 indicate that a remedy for diabetes is administered together with a remedy for hyperlipemia to treat both disorders in an integrated manner, therefore it would be obvious to a person skilled in the art to employ a hydroxymethyl-CoA reductase inhibitor such as pravastatin, a typical example as set forth in document 4, as a remedy for hyperlipemia in the invention set forth in document 1, and to employ an α-glucosidase inhibitor such as voglibose, which is a typical example as set forth in document 4, and to use the resultant pharmaceutical in the treatment of hyperlipemia or diabetes (document 2, paragraph [0006]; document 3, page 2, lines 4 to 13; page 3, lines 10 to 15; document 4, etc.).

(3) Inventive Step of Claims 1 to 17/Documents 2 to 6

With regard to phenofibrate which is a fibrate-based remedy for the treatment of hyperlipemia, document 5 indicates that phenofibrate reduces the blood-sugar level when the stomach is empty or after a meal, and document 2 indicates that phenofibrate reduces the blood-sugar level (document 2, paragraphs [0031] to [0035]; document 5, page 359, table 2).

With regard to bezafibrate, which is a fibrate

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

remedy for hyperlipemia, is used together with sulfonylurea, which is a remedy for diabetes, to control blood-sugar levels and blood-cholesterol levels (see page 18, tables 1 and 2 and page 19, table 4).

In addition, as set forth in (2) above, documents 2 and 3 indicate that a remedy for diabetes and a remedy for hyperlipemia are combined in an attempt to treat both disorders in an integrated manner (see the parts of documents 2 and 3 indicated in (2) above).

That being the case, it would be obvious to a person skilled in the art to use an invention obtained by using an α-glucosidase inhibitor such as voglibose, which is a foremost example as set forth in document 4, as a remedy for diabetes, taking into account documents 2 and 3, in the invention set forth in document 7, in the treatment of hyperlipemia or diabetes. Moreover, with regard to remedies for hyperlipemia, it would be obvious to a person skilled in the art to use a fibrate agent such as phenofibrate, which is a typical remedy for hyperlipemia, as set forth in documents 2 and 4, as an alternative to bezafibrate, in the light of documents 2 and 3 (document 2, paragraph [0003]).

Moreover, even in reference to the description, there are no grounds to prove that the aforementioned selective matter would offer a special and marked effect which would be unexpected to a person skilled in the art.

remedy for hyperlipemia, document 6 indicates that bezafibrate reduces the blood-sugar level when the stomach is empty or after a meal, and document 2 indicates that phenofibrate reduces the blood-sugar level (document 2, paragraphs [0031] to [0035]; document 6, entire document).

Then, as indicated in (2) above, documents 2 and 3 indicate that a remedy for diabetes and a remedy for hyperlipemia are combined in an attempt to treat both disorders in an integrated manner (see the parts of documents 2 and 3 indicated in (2) above).

That being the case, in order to produce a pharmaceutical having an outstanding effect of lowering blood-sugar levels and an effect of improving hyperlipemia, it would be obvious to a person skilled in the art to combine a fibrate compound such as phenofibrate or bezafibrate and an α-glucosidase such as voglibose, which is a foremost remedy for diabetes as set forth in document 4, taking into account documents 2, 3, 5 and 6.

Moreover, in examining the effect of lowering blood-sugar levels offered by the combined pharmaceutical of the present invention, the effect is acknowledged to be of the degree of an added effect, and no comparison is shown with a combination of a fibrate and a diabetes remedy other than metformin, therefore this effect is not acknowledged to be special.

(4) Inventive Step of Claims 1 to 17/Documents 2 to 4 and 7

Document 7 indicates that bezafibrate, a fibrate